

SEQUENCE LISTING

<110> Donoho, Gregory
 Scoville, John
 Turner, C. Alexander Jr.
 Friedrich, Glenn
 Zambrowicz, Brian
 Sands, Arthur T.

<120> Novel Human Membrane Proteins and
 Polynucleotides Encoding the Same

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 Glu Gly Leu Thr Gln Lys Val Asn Thr Pro Phe Leu Lys Ala Leu Val
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 Pro Ser Gln Val Pro Arg Gln Val Met Lys Asp Glu Asp Lys Pro Pro
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 Asp Arg Val Arg Leu Pro Lys Ser Leu Phe Arg Ser Leu Pro Gly Asn
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 Thr Leu Phe Lys Gly Pro Arg Leu Gly Leu Gly Asp Gly Ser Gly Val
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 Cys Asp His Leu Thr Phe Phe Ala Leu Leu Leu Arg Pro Thr Leu Asp
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 Gly Ala Val Phe His Tyr Phe Leu Cys Ala Phe Thr Trp Met Gly
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 Tyr Phe Gly His Tyr Phe Leu Lys Leu Ser Leu Val Gly Trp Gly Leu
 225 230 235 240
 Pro Ala Leu Met Val Ile Gly Thr Gly Ser Ala Asn Ser Tyr Gly Leu
 245 250 255
 Tyr Thr Ile Arg Asp Arg Glu Asn Arg Thr Ser Leu Glu Leu Cys Trp
 260 265 270
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 305 310 315 320
 Gly Lys Asn Arg Lys Lys Val Leu Thr Leu Leu Gly Leu Ser Ser Leu
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35 40 45
Leu Val Asn Val Gly Ser Gly Ser Lys Gly Ser Asp Ala Ala Cys Trp
50 55 60
Ala Arg Gly Ala Val Phe His Tyr Phe Leu Leu Cys Ala Phe Thr Trp
65 70 75 80
Met Gly Leu Glu Ala Phe His Leu Tyr Leu Leu Ala Val Arg Val Phe
85 90 95
Asn Thr Tyr Phe Gly His Tyr Phe Leu Lys Leu Ser Leu Val Gly Trp
100 105 110
Gly Leu Pro Ala Leu Met Val Ile Gly Thr Gly Ser Ala Asn Ser Tyr
115 120 125
Gly Leu Tyr Thr Ile Arg Asp Arg Glu Asn Arg Thr Ser Leu Glu Leu
130 135 140
Cys Trp Phe Arg Glu Gly Thr Thr Met Tyr Ala Leu Tyr Ile Thr Val
145 150 155 160
His Gly Tyr Phe Leu Ile Thr Phe Leu Phe Gly Met Val Val Leu Ala
165 170 175
Leu Val Val Trp Lys Ile Phe Thr Leu Ser Arg Ala Thr Ala Val Lys
180 185 190
Glu Arg Gly Lys Asn Arg Lys Lys Val Leu Thr Leu Leu Gly Leu Ser
195 200 205
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gtgatatga						489

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<210> 12
<211> 162
<212> PRT
<213> Homo sapiens
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[illegible]

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<211> 1515
<212> DNA
<213> Homo sapiens
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atcttcaact	tgaatgacaa	ggctttgtgc	ttcaccaagt	gcaggcagtc	gggcagcgac		180
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gaaggtttga	cgcagaaggt	gaacacgcct	ttcctgaagg	ctttggtcca	gaacctcagc		300
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gggaccgtgt	gctgctgtga	ccacctgacc	tttttcgccc	tgctcctgag	accaccttg		780

Leu Tyr Ala Phe Leu Arg Leu Ser Arg Glu Arg Phe Lys Ser Glu Asp
 290 295 300
 Ala Pro Lys Ile His Val Ala Leu Gly Gly Ser Leu Phe Leu Leu Asn
 305 310 315 320
 Leu Ala Phe Leu Val Asn Val Gly Ser Gly Ser Lys Gly Ser Asp Ala
 325 330 335
 Ala Cys Trp Ala Arg Gly Ala Val Phe His Tyr Phe Leu Leu Cys Ala
 340 345 350
 Phe Thr Trp Met Gly Leu Glu Ala Phe His Leu Tyr Leu Leu Ala Val
 355 360 365
 Arg Val Phe Asn Thr Tyr Phe Gly His Tyr Phe Leu Lys Leu Ser Leu
 370 375 380
 Val Gly Trp Gly Leu Pro Ala Leu Met Val Ile Gly Thr Gly Ser Ala
 385 390 395 400
 Asn Ser Tyr Gly Leu Tyr Thr Ile Arg Asp Arg Glu Asn Arg Thr Ser
 405 410 415
 Leu Glu Leu Cys Trp Phe Arg Glu Gly Thr Thr Met Tyr Ala Leu Tyr
 420 425 430
 Ile Thr Val His Gly Tyr Phe Leu Ile Thr Phe Leu Phe Gly Met Val
 435 440 445
 Val Leu Ala Leu Val Val Trp Lys Ile Phe Thr Leu Ser Arg Ala Thr
 450 455 460
 Ala Val Lys Glu Arg Gly Lys Asn Arg Cys Ser Pro Cys Trp Ala Ser
 465 470 475 480
 Arg Ala Leu Gln Val Gly Cys Pro Ser Ser Ile Ser Gly Pro Ile Ser
 485 490 495
 Cys Asp Gln Lys Gly Arg Ile Met
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<210> 15

<211> 885

<212> DNA

<213> Homo sapiens

<400> 15

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aagaaccggt	gctcaccctg	ctgggcctct	cgagccttgc	aagttgggtg	tccatcgctc	840
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<210> 16

<211> 294

<212> PRT

<213> Homo sapiens

<400> 16

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 Val Cys Cys Cys Asp His Leu Thr Phe Phe Ala Leu Leu Arg Pro
 35 40 45
 Thr Leu Asp Gln Ser Thr Val His Ile Leu Thr Arg Ile Ser Gln Ala
 50 55 60
 Gly Cys Gly Val Ser Met Ile Phe Leu Ala Phe Thr Ile Ile Leu Tyr
 65 70 75 80
 Ala Phe Leu Arg Leu Ser Arg Glu Arg Phe Lys Ser Glu Asp Ala Pro
 85 90 95
 Lys Ile His Val Ala Leu Gly Gly Ser Leu Phe Leu Leu Asn Leu Ala
 100 105 110
 Phe Leu Val Asn Val Gly Ser Gly Ser Lys Gly Ser Asp Ala Ala Cys
 115 120 125
 Trp Ala Arg Gly Ala Val Phe His Tyr Phe Leu Leu Cys Ala Phe Thr
 130 135 140
 Trp Met Gly Leu Glu Ala Phe His Leu Tyr Leu Leu Ala Val Arg Val
 145 150 155 160
 Phe Asn Thr Tyr Phe Gly His Tyr Phe Leu Lys Leu Ser Leu Val Gly
 165 170 175
 Trp Gly Leu Pro Ala Leu Met Val Ile Gly Thr Gly Ser Ala Asn Ser
 180 185 190
 Tyr Gly Leu Tyr Thr Ile Arg Asp Arg Glu Asn Arg Thr Ser Leu Glu
 195 200 205
 Leu Cys Trp Phe Arg Glu Gly Thr Thr Met Tyr Ala Leu Tyr Ile Thr
 210 215 220
 Val His Gly Tyr Phe Leu Ile Thr Phe Leu Phe Gly Met Val Val Leu
 225 230 235 240
 Ala Leu Val Val Trp Lys Ile Phe Thr Leu Ser Arg Ala Thr Ala Val
 245 250 255
 Lys Glu Arg Gly Lys Asn Arg Cys Ser Pro Cys Trp Ala Ser Arg Ala
 260 265 270
 Leu Gln Val Gly Cys Pro Ser Ser Ile Ser Gly Pro Ile Ser Cys Asp
 275 280 285
 Gln Lys Gly Arg Ile Met
 290

<210> 17

<211> 1068

<212> DNA

<213> Homo sapiens

<400> 17

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aacatgacct	tcacctgtgt	attctgggat	gtgactaaag	ggaccactgg	agactggtct	240
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acctttttcg	ccctgctcct	gagaccaccc	ttggaccagt	ccacggtgca	tatcctcaca	360
cgcatctccc	aggcgggctg	tggggctctc	atgatcttcc	tggccttcac	cattattctt	420
tatgcctttc	tgaggctttc	ccgggagagg	ttcaagtcag	aagatgcccc	aaagatccac	480
gtggccctgg	gtggcagcct	gttcctcctg	aatctggcct	tcttggtcaa	tgtggggagt	540
ggctcaaagg	ggtctgatgc	tgctgctggt	gccccggggg	ctgtcttcca	ctacttcctg	600

195 200 205
 Gln Val Gly Cys Pro Ser Ser Ile Ser Gly Pro Ile Ser Cys Asp Gln
 210 215 220
 Lys Gly Arg Ile Met
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<210> 21
 <211> 477
 <212> DNA
 <213> Homo sapiens

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 ggcaccttca cagacagaaa agctcagcca ggggacttcc tgggtttgct ggccagaggt 180
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 aaggagcggg ggaagaaccg gtgctcacc ctcgagcctt gcaagttggg 420
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<210> 22
 <211> 158
 <212> PRT
 <213> Homo sapiens

<400> 22
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 35 40 45
 Gln Pro Gly Asp Phe Leu Gly Leu Leu Ala Arg Gly Thr Thr Pro Ser
 50 55 60
 Pro Thr Thr Ala Ala Pro Ser Ser Arg Cys Trp Phe Arg Glu Gly Thr
 65 70 75 80
 Thr Met Tyr Ala Leu Tyr Ile Thr Val His Gly Tyr Phe Leu Ile Thr
 85 90 95
 Phe Leu Phe Gly Met Val Val Leu Ala Leu Val Val Trp Lys Ile Phe
 100 105 110
 Thr Leu Ser Arg Ala Thr Ala Val Lys Glu Arg Gly Lys Asn Arg Cys
 115 120 125
 Ser Pro Cys Trp Ala Ser Arg Ala Leu Gln Val Gly Cys Pro Ser Ser
 130 135 140
 Ile Ser Gly Pro Ile Ser Cys Asp Gln Lys Gly Arg Ile Met
 145 150 155

<210> 23
 <211> 1566
 <212> DNA
 <213> Homo sapiens

<400> 23
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gaagggtttga cgcagaaggt gaacacgcct ttcctgaagg ctttgggtcca gaacctcagc 300
accaacactg cagaagactt ctatttctct ctggagccct ctcagggttcc gaggcaggtg 360
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<210> 24
 <211> 521
 <212> PRT
 <213> Homo sapiens

<400> 24

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Pro	Thr	Ser	Gly	Gln	Glu	Lys	Pro	Thr	Glu	Gly	Pro	Arg	Asn	Thr	Cys	
			20					25				30				
Leu	Gly	Ser	Asn	Asn	Met	Tyr	Asp	Ile	Phe	Asn	Leu	Asn	Asp	Lys	Ala	
		35				40					45					
Leu	Cys	Phe	Thr	Lys	Cys	Arg	Gln	Ser	Gly	Ser	Asp	Ser	Cys	Asn	Val	
	50				55						60					
Glu	Asn	Leu	Gln	Arg	Tyr	Trp	Leu	Asn	Tyr	Glu	Ala	His	Leu	Met	Lys	
65				70						75				80		
Glu	Gly	Leu	Thr	Gln	Lys	Val	Asn	Thr	Pro	Phe	Leu	Lys	Ala	Leu	Val	
			85					90					95			
Gln	Asn	Leu	Ser	Thr	Asn	Thr	Ala	Glu	Asp	Phe	Tyr	Phe	Ser	Leu	Glu	
		100					105					110				
Pro	Ser	Gln	Val	Pro	Arg	Gln	Val	Met	Lys	Asp	Glu	Asp	Lys	Pro	Pro	
	115					120					125					
Asp	Arg	Val	Arg	Leu	Pro	Lys	Ser	Leu	Phe	Arg	Ser	Leu	Pro	Gly	Asn	
	130				135					140						
Arg	Ser	Val	Val	Arg	Leu	Ala	Val	Thr	Ile	Leu	Asp	Ile	Gly	Pro	Gly	
145				150					155					160		
Thr	Leu	Phe	Lys	Gly	Pro	Arg	Leu	Gly	Leu	Gly	Asp	Gly	Ser	Gly	Val	
			165				170						175			
Leu	Asn	Asn	Arg	Leu	Val	Gly	Leu	Ser	Val	Gly	Gln	Met	His	Val	Thr	
		180					185						190			

Lys Leu Ala Glu Pro Leu Glu Ile Val Phe Ser His Gln Arg Pro Pro
195 200 205
Pro Asn Met Thr Leu Thr Cys Val Phe Trp Asp Val Thr Lys Gly Thr
210 215 220
Thr Gly Asp Trp Ser Ser Glu Gly Cys Ser Thr Glu Val Arg Pro Glu
225 230 235 240
Gly Thr Val Cys Cys Cys Asp His Leu Thr Phe Phe Ala Leu Leu Leu
245 250 255
Arg Pro Thr Leu Asp Gln Ser Thr Val His Ile Leu Thr Arg Ile Ser
260 265 270
Gln Ala Gly Cys Gly Val Ser Met Ile Phe Leu Ala Phe Thr Ile Ile
275 280 285
Leu Tyr Ala Phe Leu Arg Leu Ser Arg Glu Arg Phe Lys Ser Glu Asp
290 295 300
Ala Pro Lys Ile His Val Ala Leu Gly Gly Ser Leu Phe Leu Leu Asn
305 310 315 320
Leu Ala Phe Leu Val Asn Val Gly Ser Gly Ser Lys Gly Ser Asp Ala
325 330 335
Ala Cys Trp Ala Arg Gly Ala Val Phe His Tyr Phe Leu Leu Cys Ala
340 345 350
Phe Thr Trp Met Gly Leu Glu Ala Phe His Leu Tyr Leu Leu Ala Val
355 360 365
Arg Val Phe Asn Thr Tyr Phe Gly His Tyr Phe Leu Lys Leu Ser Leu
370 375 380
Val Gly Trp Gly Leu Pro Ala Leu Met Val Ile Gly Thr Gly Ser Ala
385 390 395 400
Asn Ser Tyr Gly Leu Tyr Thr Ile Arg Asp Arg Glu Asn Arg Thr Ser
405 410 415
Leu Glu Leu Cys Trp Phe Arg Glu Gly Thr Thr Met Tyr Ala Leu Tyr
420 425 430
Ile Thr Val His Gly Tyr Phe Leu Ile Thr Phe Leu Phe Gly Met Val
435 440 445
Val Leu Ala Leu Val Val Trp Lys Ile Phe Thr Leu Ser Arg Ala Thr
450 455 460
Ala Val Lys Glu Arg Gly Lys Asn Arg Lys Lys Val Leu Thr Leu Leu
465 470 475 480
Gly Leu Ser Ser Leu Val Gly Val Thr Trp Gly Leu Ala Ile Phe Thr
485 490 495
Pro Leu Gly Leu Ser Thr Val Tyr Ile Phe Ala Leu Phe Asn Ser Leu
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Gln Gly Glu Ala Pro Ala Pro Gly Arg
515 520

<210> 25
<211> 936
<212> DNA
<213> Homo sapiens

<400> 25
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tttttcgccc tgctcctgag acccaccttg gaccagtcca cggtgcatat cctcacacgc 180
atctcccagg cgggctgtgg ggtctccatg atcttcctgg ccttcaccat tattctttat 240
gcctttctga ggctttcccg ggagagggtc aagtcagaag atgccccaaa gatccacgtg 300
gccctgggtg gcagcctgtt cctcctgaat ctggccttct tgggtcaatgt ggggagtggc 360
tcaaaggggt ctgatgctgc ctgctggggc cggggggctg tcttcacta cttcctgctc 420


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gccctgggtg tctggaagat cttcaccctg tcccgtgcta cagcggtcaa ggagcggggg 780
aagaaccgga agaaggtgct caccctgctg ggcctctcga gcctgggtggg tgtgacatgg 840
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<210> 26

<211> 311

<212> PRT

<213> Homo sapiens

<400> 26

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          20          25          30
Val Cys Cys Cys Asp His Leu Thr Phe Phe Ala Leu Leu Leu Arg Pro
          35          40          45
Thr Leu Asp Gln Ser Thr Val His Ile Leu Thr Arg Ile Ser Gln Ala
          50          55          60
Gly Cys Gly Val Ser Met Ile Phe Leu Ala Phe Thr Ile Ile Leu Tyr
65          70          75          80
Ala Phe Leu Arg Leu Ser Arg Glu Arg Phe Lys Ser Glu Asp Ala Pro
          85          90          95
Lys Ile His Val Ala Leu Gly Gly Ser Leu Phe Leu Leu Asn Leu Ala
          100          105          110
Phe Leu Val Asn Val Gly Ser Gly Ser Lys Gly Ser Asp Ala Ala Cys
          115          120          125
Trp Ala Arg Gly Ala Val Phe His Tyr Phe Leu Leu Cys Ala Phe Thr
          130          135          140
Trp Met Gly Leu Glu Ala Phe His Leu Tyr Leu Leu Ala Val Arg Val
145          150          155          160
Phe Asn Thr Tyr Phe Gly His Tyr Phe Leu Lys Leu Ser Leu Val Gly
          165          170          175
Trp Gly Leu Pro Ala Leu Met Val Ile Gly Thr Gly Ser Ala Asn Ser
          180          185          190
Tyr Gly Leu Tyr Thr Ile Arg Asp Arg Glu Asn Arg Thr Ser Leu Glu
          195          200          205
Leu Cys Trp Phe Arg Glu Gly Thr Thr Met Tyr Ala Leu Tyr Ile Thr
          210          215          220
Val His Gly Tyr Phe Leu Ile Thr Phe Leu Phe Gly Met Val Val Leu
225          230          235          240
Ala Leu Val Val Trp Lys Ile Phe Thr Leu Ser Arg Ala Thr Ala Val
          245          250          255
Lys Glu Arg Gly Lys Asn Arg Lys Lys Val Leu Thr Leu Leu Gly Leu
          260          265          270
Ser Ser Leu Val Gly Val Thr Trp Gly Leu Ala Ile Phe Thr Pro Leu
          275          280          285
Gly Leu Ser Thr Val Tyr Ile Phe Ala Leu Phe Asn Ser Leu Gln Gly
          290          295          300
Glu Ala Pro Ala Pro Gly Arg
305          310

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<210> 27
 <211> 1119
 <212> DNA
 <213> Homo sapiens

<400> 27
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 catgtcacca agctggctga gcctctggag atcgtcttct ctcaccagcg accgccccct 180
 aacatgaccc tcacctgtgt attctgggat gtgactaaag ggaccactgg agactgggtct 240
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 gggaagaacc ggaagaaggt gctcacccct ctgggcctct cgagcctggg ggggtgtgaca 1020
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 aactccttgc aaggtgaggg ccctgcacca gggaggtga 1119

<210> 28
 <211> 372
 <212> PRT
 <213> Homo sapiens

<400> 28
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 Pro Arg Leu Gly Leu Gly Asp Gly Ser Gly Val Leu Asn Asn Arg Leu
 20 25 30
 Val Gly Leu Ser Val Gly Gln Met His Val Thr Lys Leu Ala Glu Pro
 35 40 45
 Leu Glu Ile Val Phe Ser His Gln Arg Pro Pro Pro Asn Met Thr Leu
 50 55 60
 Thr Cys Val Phe Trp Asp Val Thr Lys Gly Thr Thr Gly Asp Trp Ser
 65 70 75 80
 Ser Glu Gly Cys Ser Thr Glu Val Arg Pro Glu Gly Thr Val Cys Cys
 85 90 95
 Cys Asp His Leu Thr Phe Phe Ala Leu Leu Leu Arg Pro Thr Leu Asp
 100 105 110
 Gln Ser Thr Val His Ile Leu Thr Arg Ile Ser Gln Ala Gly Cys Gly
 115 120 125
 Val Ser Met Ile Phe Leu Ala Phe Thr Ile Ile Leu Tyr Ala Phe Leu
 130 135 140
 Arg Leu Ser Arg Glu Arg Phe Lys Ser Glu Asp Ala Pro Lys Ile His
 145 150 155 160
 Val Ala Leu Gly Gly Ser Leu Phe Leu Leu Asn Leu Ala Phe Leu Val
 165 170 175
 Asn Val Gly Ser Gly Ser Lys Gly Ser Asp Ala Ala Cys Trp Ala Arg
 180 185 190

Gly Ala Val Phe His Tyr Phe Leu Leu Cys Ala Phe Thr Trp Met Gly
 195 200 205
 Leu Glu Ala Phe His Leu Tyr Leu Leu Ala Val Arg Val Phe Asn Thr
 210 215 220
 Tyr Phe Gly His Tyr Phe Leu Lys Leu Ser Leu Val Gly Trp Gly Leu
 225 230 235 240
 Pro Ala Leu Met Val Ile Gly Thr Gly Ser Ala Asn Ser Tyr Gly Leu
 245 250 255
 Tyr Thr Ile Arg Asp Arg Glu Asn Arg Thr Ser Leu Glu Leu Cys Trp
 260 265 270
 Phe Arg Glu Gly Thr Thr Met Tyr Ala Leu Tyr Ile Thr Val His Gly
 275 280 285
 Tyr Phe Leu Ile Thr Phe Leu Phe Gly Met Val Val Leu Ala Leu Val
 290 295 300
 Val Trp Lys Ile Phe Thr Leu Ser Arg Ala Thr Ala Val Lys Glu Arg
 305 310 315 320
 Gly Lys Asn Arg Lys Lys Val Leu Thr Leu Leu Gly Leu Ser Ser Leu
 325 330 335
 Val Gly Val Thr Trp Gly Leu Ala Ile Phe Thr Pro Leu Gly Leu Ser
 340 345 350
 Thr Val Tyr Ile Phe Ala Leu Phe Asn Ser Leu Gln Gly Glu Ala Pro
 355 360 365
 Ala Pro Gly Arg
 370

<210> 29
 <211> 741
 <212> DNA
 <213> Homo sapiens

<400> 29
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 tcccgggaga ggttcaagtc agaagatgcc ccaaagatcc acgtggccct ggggtggcagc 120
 ctgttctctc tgaatctggc cttcttgggc aatgtgggga gtggctcaaa ggggtctgat 180
 gctgcctgct gggcccgggg ggctgtcttc cactacttcc tgctctgtgc cttcacctgg 240
 atgggccttg aagccttcca cctctacctg ctgcgtgtca gggctcttcaa cacctacttc 300
 gggcactact tcctgaagct gagcctgggtg ggctggggcc tgcccggcct gatgggtcatc 360
 ggcactggga gtgccaacag ctacggcctc tacaccatcc gtgataggga gaaccgcacc 420
 tctctggagc tatgtctggtt ccgtgaaggg acaaccatgt acgccctcta tatcaccgtc 480
 cacggctact tcctcatcac cttcctcttt ggcattgggtg tcctggccct ggtggtctgg 540
 aagatcttca ccctgtcccg tgctacagcg gtcaaggagc gggggaagaa ccggaagaag 600
 gtgctcaccg tgctgggcct ctgagcctg gtgggtgtga catgggggtt ggccatcttc 660
 acccggttgg gcctctccac cgtctacatc ttgtcacttt tcaactcctt gcaagggtgag 720
 gccctgcac caggaggtg a 741

<210> 30
 <211> 246
 <212> PRT
 <213> Homo sapiens

<400> 30
 Met Gly Ala Pro His Gly Ser Cys Gly Pro Leu Gly Pro Leu Ile Ser
 1 5 10 15
 His Pro Arg Leu Ser Arg Glu Arg Phe Lys Ser Glu Asp Ala Pro Lys
 20 25 30
 Ile His Val Ala Leu Gly Gly Ser Leu Phe Leu Leu Asn Leu Ala Phe

```

      35              40              45
Leu Val Asn Val Gly Ser Gly Ser Lys Gly Ser Asp Ala Ala Cys Trp
  50              55              60
Ala Arg Gly Ala Val Phe His Tyr Phe Leu Leu Cys Ala Phe Thr Trp
  65              70              75              80
Met Gly Leu Glu Ala Phe His Leu Tyr Leu Leu Ala Val Arg Val Phe
      85              90              95
Asn Thr Tyr Phe Gly His Tyr Phe Leu Lys Leu Ser Leu Val Gly Trp
      100              105              110
Gly Leu Pro Ala Leu Met Val Ile Gly Thr Gly Ser Ala Asn Ser Tyr
      115              120              125
Gly Leu Tyr Thr Ile Arg Asp Arg Glu Asn Arg Thr Ser Leu Glu Leu
      130              135              140
Cys Trp Phe Arg Glu Gly Thr Thr Met Tyr Ala Leu Tyr Ile Thr Val
  145              150              155              160
His Gly Tyr Phe Leu Ile Thr Phe Leu Phe Gly Met Val Val Leu Ala
      165              170              175
Leu Val Val Trp Lys Ile Phe Thr Leu Ser Arg Ala Thr Ala Val Lys
      180              185              190
Glu Arg Gly Lys Asn Arg Lys Lys Val Leu Thr Leu Leu Gly Leu Ser
      195              200              205
Ser Leu Val Gly Val Thr Trp Gly Leu Ala Ile Phe Thr Pro Leu Gly
      210              215              220
Leu Ser Thr Val Tyr Ile Phe Ala Leu Phe Asn Ser Leu Gln Gly Glu
  225              230              235              240
Ala Pro Ala Pro Gly Arg
      245

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<210> 31
 <211> 528
 <212> DNA
 <213> Homo sapiens

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<400> 31
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ggcaccttca cagacagaaa agctcagcca ggggacttcc tgggtttgct ggccagaggt      180
accactccca gtcccaccac agctgcccc tcttcagat gctggttccg tgaagggaca      240
accatgtacg cctctatat caccgtccac ggctacttcc tcatcacctt cctctttggc      300
atggtggtcc tggccctggt ggtctggaag atcttcaccc tgtcccgtgc tacagcggtc      360
aaggagcggg ggaagaaccg gaagaagggtg ctcaccctgc tgggcctctc gagcctggtg      420
ggtgtgacat gggggttggc catcttcacc ccgttgggcc tctccaccgt ctacatcttt      480
gcacttttca actccttgca aggtgaggcc cctgcaccag ggaggtga      528

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<210> 32
 <211> 175
 <212> PRT
 <213> Homo sapiens

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<400> 32
Met Gly Gln Met Lys His Val Phe Glu Val Thr Leu Ala Leu Lys Arg
  1              5              10              15
His Gln Thr Gly Ala Arg Trp Arg Pro Leu Pro Gln Arg Glu Ser Gln
      20              25              30
Gly Leu Met Gly Gly Asn Gly Arg Gly Thr Phe Thr Asp Arg Lys Ala
      35              40              45

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Gln Pro Gly Asp Phe Leu Gly Leu Leu Ala Arg Gly Thr Thr Pro Ser
50 55 60
Pro Thr Thr Ala Ala Pro Ser Ser Arg Cys Trp Phe Arg Glu Gly Thr
65 70 75 80
Thr Met Tyr Ala Leu Tyr Ile Thr Val His Gly Tyr Phe Leu Ile Thr
85 90 95
Phe Leu Phe Gly Met Val Val Leu Ala Leu Val Val Trp Lys Ile Phe
100 105 110
Thr Leu Ser Arg Ala Thr Ala Val Lys Glu Arg Gly Lys Asn Arg Lys
115 120 125
Lys Val Leu Thr Leu Leu Gly Leu Ser Ser Leu Val Gly Val Thr Trp
130 135 140
Gly Leu Ala Ile Phe Thr Pro Leu Gly Leu Ser Thr Val Tyr Ile Phe
145 150 155 160
Ala Leu Phe Asn Ser Leu Gln Gly Glu Ala Pro Ala Pro Gly Arg
165 170 175

<210> 33
<211> 1458
<212> DNA
<213> Homo sapiens

<400> 33
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caggaaaagc ccaccgaagg gccaaagaaac acctgcctgg ggagcaacaa catgtacgac 120
atcttcaact tgaatgacaa ggctttgtgc ttcaccaagt gcaggcagtc gggcagcgac 180
tctgcaatg tggaaaactt gcagagatac tggctaaact acgaggccca tctgatgaag 240
gaagggttga cgcagaaggt gaacacgcct ttctgaagg ctttgggtcca gaacctcagc 300
accaacactg cagaagactt ctatttctct ctggagccct ctcagggttc gaggcaggtg 360
atgaaggacg aggacaagcc cctgacaga gtgcgacttc ccaagagcct ttttcgatcc 420
ctgccaggca acaggtctgt ggtccgcttg gccgtcacca ttctggacat tgggtccaggg 480
actctcttca agggcccccg gctcggcctg ggagatggca gcggcgtgtt gaacaatcgc 540
ctggtgggtt tgagtgtggg acaaatgcat gtcaccaagc tggctgagcc tctggagatc 600
gtcttctctc accagcgacc gcccctaac atgacctca cctgtgtatt ctgggatgtg 660
actaaaggga cactggaga ctggtcttct gagggctgct ccacggaggt cagacctgag 720
gggaccgtgt gctgctgtga ccacctgacc tttttcgcct tgctcctgag acccaccttg 780
gaccagtcca cgggtgcatat cctcacacgc atctcccagg cgggctgttg ggtctccatg 840
atcttctctg ccttcaccat tattctttat gcctttctga ggctttcccg ggagaggttc 900
aagtcagaag atgccccaaa gatccacgtg gccctgggtg gcagcctgtt cctcctgaat 960
ctggccttct tgggtcaatgt ggggagtggc tcaaaggggt ctgatgctgc ctgctgggcc 1020
cgggggggctg tcttccacta ctctctgctc tgtgccttca cctggatggg ccttgaagcc 1080
ttccacctct acctgctcgc tgtcagggtc ttcaacacct acttcgggca ctacttctg 1140
aagctgagcc tgggtgggctg gggcctgccc gccctgatgg tcatcggcac tgggagtgcc 1200
aacagctacg gcctctacac catccgtgat agggagaacc gcacctctct ggagctatgc 1260
tggttccgtg aagggaacaac catgtacgcc ctctatatca ccgtccacgg ctacttcctc 1320
atcaccttcc tctttggcat ggtggtcctg gccctgggtg tctggaagat cttcacctg 1380
tcccgtgcta cagcgggtcaa ggagcggggg aagaaccggt gtcacctg ctgggcctct 1440
cgagcctggt ggggtgtga 1458

<210> 34
<211> 485
<212> PRT
<213> Homo sapiens

<400> 34
Met Ala Thr Pro Arg Gly Leu Gly Ala Leu Leu Leu Leu Leu Leu

1	5	10	15
Pro Thr Ser Gly	Gln Glu Lys Pro	Thr Glu Gly Pro Arg	Asn Thr Cys
20	25	30	
Leu Gly Ser Asn	Asn Met Tyr Asp	Ile Phe Asn Leu	Asn Asp Lys Ala
35	40	45	
Leu Cys Phe Thr	Lys Cys Arg Gln	Ser Gly Ser Asp	Ser Cys Asn Val
50	55	60	
Glu Asn Leu Gln	Arg Tyr Trp Leu	Asn Tyr Glu Ala	His Leu Met Lys
65	70	75	80
Glu Gly Leu Thr	Gln Lys Val Asn	Thr Pro Phe Leu	Lys Ala Leu Val
85	90	95	
Gln Asn Leu Ser	Thr Asn Thr Ala	Glu Asp Phe Tyr	Phe Ser Leu Glu
100	105	110	
Pro Ser Gln Val	Pro Arg Gln Val	Met Lys Asp Glu	Asp Lys Pro Pro
115	120	125	
Asp Arg Val Arg	Leu Pro Lys Ser	Leu Phe Arg Ser	Leu Pro Gly Asn
130	135	140	
Arg Ser Val Val	Arg Leu Ala Val	Thr Ile Leu Asp	Ile Gly Pro Gly
145	150	155	160
Thr Leu Phe Lys	Gly Pro Arg Leu	Gly Leu Gly Asp	Gly Ser Gly Val
165	170	175	
Leu Asn Asn Arg	Leu Val Gly Leu	Ser Val Gly Gln	Met His Val Thr
180	185	190	
Lys Leu Ala Glu	Pro Leu Glu Ile	Val Phe Ser His	Gln Arg Pro Pro
195	200	205	
Pro Asn Met Thr	Leu Thr Cys Val	Phe Trp Asp Val	Thr Lys Gly Thr
210	215	220	
Thr Gly Asp Trp	Ser Ser Glu Gly	Cys Ser Thr Glu	Val Arg Pro Glu
225	230	235	240
Gly Thr Val Cys	Cys Cys Asp His	Leu Thr Phe Phe	Ala Leu Leu Leu
245	250	255	
Arg Pro Thr Leu	Asp Gln Ser Thr	Val His Ile Leu	Thr Arg Ile Ser
260	265	270	
Gln Ala Gly Cys	Gly Val Ser Met	Ile Phe Leu Ala	Phe Thr Ile Ile
275	280	285	
Leu Tyr Ala Phe	Leu Arg Leu Ser	Arg Glu Arg Phe	Lys Ser Glu Asp
290	295	300	
Ala Pro Lys Ile	His Val Ala Leu	Gly Gly Ser Leu	Phe Leu Leu Asn
305	310	315	320
Leu Ala Phe Leu	Val Asn Val Gly	Ser Gly Ser Lys	Gly Ser Asp Ala
325	330	335	
Ala Cys Trp Ala	Arg Gly Ala Val	Phe His Tyr Phe	Leu Leu Cys Ala
340	345	350	
Phe Thr Trp Met	Gly Leu Glu Ala	Phe His Leu Tyr	Leu Leu Ala Val
355	360	365	
Arg Val Phe Asn	Thr Tyr Phe Gly	His Tyr Phe Leu	Lys Leu Ser Leu
370	375	380	
Val Gly Trp Gly	Leu Pro Ala Leu	Met Val Ile Gly	Thr Gly Ser Ala
385	390	395	400
Asn Ser Tyr Gly	Leu Tyr Thr Ile	Arg Asp Arg Glu	Asn Arg Thr Ser
405	410	415	
Leu Glu Leu Cys	Trp Phe Arg Glu	Gly Thr Thr Met	Tyr Ala Leu Tyr
420	425	430	
Ile Thr Val His	Gly Tyr Phe Leu	Ile Thr Phe Leu	Phe Gly Met Val
435	440	445	
Val Leu Ala Leu	Val Val Trp Lys	Ile Phe Thr Leu	Ser Arg Ala Thr

450 455 460
 Ala Val Lys Glu Arg Gly Lys Asn Arg Cys Ser Pro Cys Trp Ala Ser
 465 470 475 480
 Arg Ala Trp Trp Val
 485

<210> 35
 <211> 828
 <212> DNA
 <213> Homo sapiens

<400> 35
 atgaccctca cctgtgtatt ctgggatgtg actaaaggga ccaactggaga ctggtcttct 60
 gagggctgct ccacggaggt cagacctgag gggaccgtgt gctgctgtga ccacctgacc 120
 tttttcgccc tgctcctgag acccaccctg gaccagtcca cggtgcatat cctcacacgc 180
 atctcccagg cgggctgtgg ggtctccatg atcttcctgg ccttcacat tattctttat 240
 gcctttctga ggctttcccg ggagagggtc aagtcagaag atgccccaaa gatccacgtg 300
 gccctgggtg gcagcctggt cctcctgaat ctggccttct tgggtcaatgt ggggagtggc 360
 tcaaaggggt ctgatgctgc ctgctgggcc cggggggctg tcttccacta cttcctgctc 420
 tgtgccttca cctggatggg ccttgaagcc ttccacctct acctgctcgc tgtcagggtc 480
 ttcaacacct acttcgggca ctacttctct aagctgagcc tgggtgggctg gggcctgccc 540
 gccctgatgg tcatcggcac tgggagtgcc aacagctacg gcctctacac catccgtgat 600
 agggagaacc gcacctctct ggagctatgc tgggtccgtg aagggaacaac catgtacgcc 660
 ctctatatca ccgtccacgg ctacttcctc atcaccttcc tctttggcat ggtggctctg 720
 gccctggtgg tctggaagat cttcaccctg tcccgtgcta cagcgggtaa ggagcggggg 780
 aagaaccggt gctcaccctg ctgggcctct cgagcctggt ggggtgtga 828

<210> 36
 <211> 275
 <212> PRT
 <213> Homo sapiens

<400> 36
 Met Thr Leu Thr Cys Val Phe Trp Asp Val Thr Lys Gly Thr Thr Gly
 1 5 10 15
 Asp Trp Ser Ser Glu Gly Cys Ser Thr Glu Val Arg Pro Glu Gly Thr
 20 25 30
 Val Cys Cys Cys Asp His Leu Thr Phe Phe Ala Leu Leu Leu Arg Pro
 35 40 45
 Thr Leu Asp Gln Ser Thr Val His Ile Leu Thr Arg Ile Ser Gln Ala
 50 55 60
 Gly Cys Gly Val Ser Met Ile Phe Leu Ala Phe Thr Ile Ile Leu Tyr
 65 70 75 80
 Ala Phe Leu Arg Leu Ser Arg Glu Arg Phe Lys Ser Glu Asp Ala Pro
 85 90 95
 Lys Ile His Val Ala Leu Gly Gly Ser Leu Phe Leu Leu Asn Leu Ala
 100 105 110
 Phe Leu Val Asn Val Gly Ser Gly Ser Lys Gly Ser Asp Ala Ala Cys
 115 120 125
 Trp Ala Arg Gly Ala Val Phe His Tyr Phe Leu Leu Cys Ala Phe Thr
 130 135 140
 Trp Met Gly Leu Glu Ala Phe His Leu Tyr Leu Leu Ala Val Arg Val
 145 150 155 160
 Phe Asn Thr Tyr Phe Gly His Tyr Phe Leu Lys Leu Ser Leu Val Gly
 165 170 175
 Trp Gly Leu Pro Ala Leu Met Val Ile Gly Thr Gly Ser Ala Asn Ser

180 185 190
 Tyr Gly Leu Tyr Thr Ile Arg Asp Arg Glu Asn Arg Thr Ser Leu Glu
 195 200 205
 Leu Cys Trp Phe Arg Glu Gly Thr Thr Met Tyr Ala Leu Tyr Ile Thr
 210 215 220
 Val His Gly Tyr Phe Leu Ile Thr Phe Leu Phe Gly Met Val Val Leu
 225 230 235 240
 Ala Leu Val Val Trp Lys Ile Phe Thr Leu Ser Arg Ala Thr Ala Val
 245 250 255
 Lys Glu Arg Gly Lys Asn Arg Cys Ser Pro Cys Trp Ala Ser Arg Ala
 260 265 270
 Trp Trp Val
 275

<210> 37
 <211> 1011
 <212> DNA
 <213> Homo sapiens

<400> 37
 atggccccctt ctgcagcctg gcctccccga tctccccctt cacagggccc cgggctcggc 60
 ctgggagatg gcagcggcgt gttgaacaat cgcctgggtg gtttgagtgt gggacaaatg 120
 catgtcacca agctggctga gcctctggag atcgtcttct ctcaccagcg accgccccct 180
 aacatgaccc tcacctgtgt attctgggat gtgactaaag ggaccactgg agactgggtct 240
 tctgagggct gctccacgga ggctcagacct gaggggaccg tgtgctgctg tgaccacctg 300
 acctttttcg cctgtctect gagaccacac ttggaccagt ccacgggtgca tatectcaca 360
 cgcattctccc aggcgggctg tggggtctcc atgatcttcc tggccttcac cattattctt 420
 tatgcctttc tgaggctttc ccgggagagg ttcaagtcag aagatgcccc aaagatccac 480
 gtggcccttg gtggcagcct gttcctcctg aatctggcct tcttggtcaa tgtggggagt 540
 ggctcaaagg ggtctgatgc tgctgtctgg gcccgggggg ctgtcttcca ctacttctg 600
 ctctgtgcct tcacctggat gggccttgaa gccttcacac tctacctget cgtgtgcagg 660
 gtcttcaaca cctacttcgg gcactacttc ctgaagctga gcctgggtggg ctggggcctg 720
 cccgccttga tggctcatcg cactgggagt gccaacagct acggcctcta caccatccgt 780
 gatagggaga accgcacctc tctggagcta tgctggttcc gtgaagggac aaccatgtac 840
 gccctctata tcaccgtcca cggctacttc ctcattcacct tctcttttgg catgggtggtc 900
 ctggcccttg tggctctggaa gatcttcacc ctgtcccggt ctacagcggg caaggagcgg 960
 gggaagaacc ggtgctcacc ctgctggggc tctcgagcct ggtgggtgtg a 1011

<210> 38
 <211> 336
 <212> PRT
 <213> Homo sapiens

<400> 38
 Met Ala Pro Ser Ala Ala Trp Pro Pro Arg Ser Pro Leu Ser Gln Gly
 1 5 10 15
 Pro Arg Leu Gly Leu Gly Asp Gly Ser Gly Val Leu Asn Asn Arg Leu
 20 25 30
 Val Gly Leu Ser Val Gly Gln Met His Val Thr Lys Leu Ala Glu Pro
 35 40 45
 Leu Glu Ile Val Phe Ser His Gln Arg Pro Pro Pro Asn Met Thr Leu
 50 55 60
 Thr Cys Val Phe Trp Asp Val Thr Lys Gly Thr Thr Gly Asp Trp Ser
 65 70 75 80
 Ser Glu Gly Cys Ser Thr Glu Val Arg Pro Glu Gly Thr Val Cys Cys
 85 90 95

Cys Asp His Leu Thr Phe Phe Ala Leu Leu Leu Arg Pro Thr Leu Asp
 100 105 110
 Gln Ser Thr Val His Ile Leu Thr Arg Ile Ser Gln Ala Gly Cys Gly
 115 120 125
 Val Ser Met Ile Phe Leu Ala Phe Thr Ile Ile Leu Tyr Ala Phe Leu
 130 135 140
 Arg Leu Ser Arg Glu Arg Phe Lys Ser Glu Asp Ala Pro Lys Ile His
 145 150 155 160
 Val Ala Leu Gly Gly Ser Leu Phe Leu Leu Asn Leu Ala Phe Leu Val
 165 170 175
 Asn Val Gly Ser Gly Ser Lys Gly Ser Asp Ala Ala Cys Trp Ala Arg
 180 185 190
 Gly Ala Val Phe His Tyr Phe Leu Leu Cys Ala Phe Thr Trp Met Gly
 195 200 205
 Leu Glu Ala Phe His Leu Tyr Leu Leu Ala Val Arg Val Phe Asn Thr
 210 215 220
 Tyr Phe Gly His Tyr Phe Leu Lys Leu Ser Leu Val Gly Trp Gly Leu
 225 230 235 240
 Pro Ala Leu Met Val Ile Gly Thr Gly Ser Ala Asn Ser Tyr Gly Leu
 245 250 255
 Tyr Thr Ile Arg Asp Arg Glu Asn Arg Thr Ser Leu Glu Leu Cys Trp
 260 265 270
 Phe Arg Glu Gly Thr Thr Met Tyr Ala Leu Tyr Ile Thr Val His Gly
 275 280 285
 Tyr Phe Leu Ile Thr Phe Leu Phe Gly Met Val Val Leu Ala Leu Val
 290 295 300
 Val Trp Lys Ile Phe Thr Leu Ser Arg Ala Thr Ala Val Lys Glu Arg
 305 310 315 320
 Gly Lys Asn Arg Cys Ser Pro Cys Trp Ala Ser Arg Ala Trp Trp Val
 325 330 335

<210> 39
 <211> 633
 <212> DNA
 <213> Homo sapiens

<400> 39
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 tcccgggaga ggttcaagtc agaagatgcc ccaaagatcc acgtggccct ggggtggcagc 120
 ctgttcctcc tgaatctggc cttcttggtc aatgtgggga gtggctcaaa ggggtctgat 180
 gctgcctgct gggcccgggg ggctgtcttc cactacttcc tgctctgtgc cttcacctgg 240
 atgggccttg aagccttcca cctctacctg ctcgctgtca gggctcttcaa cacctacttc 300
 gggcactact tcctgaagct gagcctgggtg ggctggggcc tgcccgcctt gatggtcatc 360
 ggcactggga gtgccaacag ctacggcctc tacaccatcc gtgataggga gaaccgcacc 420
 tctctggagc tatgctggtt ccgtgaaggg acaaccatgt acgccctcta tatcaccgtc 480
 cacggctact tcctcatcac ctctctcttt ggcattgggtg tcctggccct ggtggtctgg 540
 aagatcttca cctgtccccg tgctacagcg gtcaaggagc gggggaagaa ccggtgtctca 600
 cctgtctggg cctctcgagc ctggtgggtg tga 633

<210> 40
 <211> 210
 <212> PRT
 <213> Homo sapiens

<400> 40
 Met Gly Ala Pro His Gly Ser Cys Gly Pro Leu Gly Pro Leu Ile Ser

1				5					10					15			
His	Pro	Arg	Leu	Ser	Arg	Glu	Arg	Phe	Lys	Ser	Glu	Asp	Ala	Pro	Lys		
			20					25					30				
Ile	His	Val	Ala	Leu	Gly	Gly	Ser	Leu	Phe	Leu	Leu	Asn	Leu	Ala	Phe		
		35					40					45					
Leu	Val	Asn	Val	Gly	Ser	Gly	Ser	Lys	Gly	Ser	Asp	Ala	Ala	Cys	Trp		
	50					55					60						
Ala	Arg	Gly	Ala	Val	Phe	His	Tyr	Phe	Leu	Leu	Cys	Ala	Phe	Thr	Trp		
65					70					75					80		
Met	Gly	Leu	Glu	Ala	Phe	His	Leu	Tyr	Leu	Leu	Ala	Val	Arg	Val	Phe		
				85					90					95			
Asn	Thr	Tyr	Phe	Gly	His	Tyr	Phe	Leu	Lys	Leu	Ser	Leu	Val	Gly	Trp		
			100					105					110				
Gly	Leu	Pro	Ala	Leu	Met	Val	Ile	Gly	Thr	Gly	Ser	Ala	Asn	Ser	Tyr		
		115					120					125					
Gly	Leu	Tyr	Thr	Ile	Arg	Asp	Arg	Glu	Asn	Arg	Thr	Ser	Leu	Glu	Leu		
	130					135					140						
Cys	Trp	Phe	Arg	Glu	Gly	Thr	Thr	Met	Tyr	Ala	Leu	Tyr	Ile	Thr	Val		
145					150					155					160		
His	Gly	Tyr	Phe	Leu	Ile	Thr	Phe	Leu	Phe	Gly	Met	Val	Val	Leu	Ala		
				165				170						175			
Leu	Val	Val	Trp	Lys	Ile	Phe	Thr	Leu	Ser	Arg	Ala	Thr	Ala	Val	Lys		
			180					185					190				
Glu	Arg	Gly	Lys	Asn	Arg	Cys	Ser	Pro	Cys	Trp	Ala	Ser	Arg	Ala	Trp		
		195					200						205				
Trp	Val																
	210																

<210> 41

<211> 420

<212> DNA

<213> Homo sapiens

<400> 41

atggggcaaa	tgaacatgt	ctttgaggtc	actttggcat	taaagagaca	ccagactgga	60
gccaggtggc	ggccctccc	acagcgggag	agccagggat	tgatgggtgg	aaatgggaga	120
ggcaccttca	cagacagaaa	agctcagcca	ggggacttcc	tgggtttgct	ggccagaggt	180
accactccca	gtcccaccac	agctgcccc	tcctccagat	gctggttccg	tgaagggaca	240
accatgtacg	ccctctatat	caccgtccac	ggctacttcc	tcatcacctt	cctctttggc	300
atgggtgtcc	tggccctggt	ggtctggaag	atcttcaccc	tgtcccgtgc	tacagcggtc	360
aaggagcggg	ggaagaaccg	gtgctcacc	tgctgggcct	ctcgagcctg	gtgggtgtga	420

<210> 42

<211> 139

<212> PRT

<213> Homo sapiens

<400> 42

Met	Gly	Gln	Met	Lys	His	Val	Phe	Glu	Val	Thr	Leu	Ala	Leu	Lys	Arg
1				5					10					15	
His	Gln	Thr	Gly	Ala	Arg	Trp	Arg	Pro	Leu	Pro	Gln	Arg	Glu	Ser	Gln
			20					25					30		
Gly	Leu	Met	Gly	Gly	Asn	Gly	Arg	Gly	Thr	Phe	Thr	Asp	Arg	Lys	Ala
		35					40					45			
Gln	Pro	Gly	Asp	Phe	Leu	Gly	Leu	Leu	Ala	Arg	Gly	Thr	Thr	Pro	Ser
	50						55					60			

Pro	Thr	Thr	Ala	Ala	Pro	Ser	Ser	Arg	Cys	Trp	Phe	Arg	Glu	Gly	Thr
65					70					75					80
Thr	Met	Tyr	Ala	Leu	Tyr	Ile	Thr	Val	His	Gly	Tyr	Phe	Leu	Ile	Thr
				85					90					95	
Phe	Leu	Phe	Gly	Met	Val	Val	Leu	Ala	Leu	Val	Val	Trp	Lys	Ile	Phe
			100					105					110		
Thr	Leu	Ser	Arg	Ala	Thr	Ala	Val	Lys	Glu	Arg	Gly	Lys	Asn	Arg	Cys
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	130					135									

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<210> 43
<211> 1650
<212> DNA
<213> Homo sapiens
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tcttgcaatg	tggaaaactt	gcagagatac	tggctaaact	acgaggccca	tctgatgaag		240
gaaggtttga	cgcagaaggt	gaacacgcct	ttcctgaagg	ctttgggtcca	gaacctcagc		300
accaacactg	cagaagactt	ctatcttctct	ctggagccct	ctcaggttcc	gaggcaggtg		360
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ctggccttct	tggccaatgt	ggggagtggc	tcaaaggggt	ctgatgctgc	ctgctggggc		1020
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gaccaggccc	actccgcac	tcaagaatag					1650

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<210> 44
<211> 549
<212> PRT
<213> Homo sapiens
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<400> 44
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20 25 30

Gly	Leu	Ser	Ser	Leu	Val	Gly	Val	Thr	Trp	Gly	Leu	Ala	Ile	Phe	Thr	
				485					490					495		
Pro	Leu	Gly	Leu	Ser	Thr	Val	Tyr	Ile	Phe	Ala	Leu	Phe	Asn	Ser	Leu	
				500					505					510		
Gln	Gly	Val	Phe	Ile	Cys	Cys	Trp	Phe	Thr	Ile	Leu	Tyr	Leu	Pro	Ser	
				515					520					525		
Gln	Ser	Thr	Thr	Val	Ser	Ser	Ser	Thr	Ala	Arg	Leu	Asp	Gln	Ala	His	
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Ser	Ala	Ser	Gln	Glu												
545																

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<210> 45
<211> 1020
<212> DNA
<213> Homo sapiens
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<210> 46
<211> 339
<212> PRT
<213> Homo sapiens
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Trp Met Gly Leu Glu Ala Phe His Leu Tyr Leu Leu Ala Val Arg Val		
145	150	155
Phe Asn Thr Tyr Phe Gly His Tyr Phe Leu Lys Leu Ser Leu Val Gly		
165	170	175
Trp Gly Leu Pro Ala Leu Met Val Ile Gly Thr Gly Ser Ala Asn Ser		
180	185	190
Tyr Gly Leu Tyr Thr Ile Arg Asp Arg Glu Asn Arg Thr Ser Leu Glu		
195	200	205
Leu Cys Trp Phe Arg Glu Gly Thr Thr Met Tyr Ala Leu Tyr Ile Thr		
210	215	220
Val His Gly Tyr Phe Leu Ile Thr Phe Leu Phe Gly Met Val Val Leu		
225	230	235
Ala Leu Val Val Trp Lys Ile Phe Thr Leu Ser Arg Ala Thr Ala Val		
245	250	255
Lys Glu Arg Gly Lys Asn Arg Lys Lys Val Leu Thr Leu Leu Gly Leu		
260	265	270
Ser Ser Leu Val Gly Val Thr Trp Gly Leu Ala Ile Phe Thr Pro Leu		
275	280	285
Gly Leu Ser Thr Val Tyr Ile Phe Ala Leu Phe Asn Ser Leu Gln Gly		
290	295	300
Val Phe Ile Cys Cys Trp Phe Thr Ile Leu Tyr Leu Pro Ser Gln Ser		
305	310	315
Thr Thr Val Ser Ser Thr Ala Arg Leu Asp Gln Ala His Ser Ala		
325	330	335
Ser Gln Glu		

<210> 47

<211> 1203

<212> DNA

<213> Homo sapiens

<400> 47

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catgtcacca	agctggctga	gcctctggag	atcgtcttct	ctcaccagcg	accgccccct	180
aacatgaccc	tcacctgtgt	attctgggat	gtgactaaag	ggaccactgg	agactgggtct	240
tctgagggtc	gctccacgga	ggtcagacct	gaggggaccg	tgtgctgctg	tgaccacctg	300
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tatgcctttc	tgaggctttc	ccgggagagg	ttcaagtcag	aagatgcccc	aaagatccac	480
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aactccttgc	aagggtgtct	catctgctgc	tggttcacca	tcctttacct	cccaagtcag	1140
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tag

1203

<210> 48
<211> 400
<212> PRT
<213> Homo sapiens

<400> 48

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			20					25					30		
Val	Gly	Leu	Ser	Val	Gly	Gln	Met	His	Val	Thr	Lys	Leu	Ala	Glu	Pro
			35				40						45		
Leu	Glu	Ile	Val	Phe	Ser	His	Gln	Arg	Pro	Pro	Pro	Asn	Met	Thr	Leu
			50			55					60				
Thr	Cys	Val	Phe	Trp	Asp	Val	Thr	Lys	Gly	Thr	Thr	Gly	Asp	Trp	Ser
65					70					75					80
Ser	Glu	Gly	Cys	Ser	Thr	Glu	Val	Arg	Pro	Glu	Gly	Thr	Val	Cys	Cys
				85					90					95	
Cys	Asp	His	Leu	Thr	Phe	Phe	Ala	Leu	Leu	Leu	Arg	Pro	Thr	Leu	Asp
			100					105					110		
Gln	Ser	Thr	Val	His	Ile	Leu	Thr	Arg	Ile	Ser	Gln	Ala	Gly	Cys	Gly
			115				120					125			
Val	Ser	Met	Ile	Phe	Leu	Ala	Phe	Thr	Ile	Ile	Leu	Tyr	Ala	Phe	Leu
			130			135					140				
Arg	Leu	Ser	Arg	Glu	Arg	Phe	Lys	Ser	Glu	Asp	Ala	Pro	Lys	Ile	His
145					150					155					160
Val	Ala	Leu	Gly	Gly	Ser	Leu	Phe	Leu	Leu	Asn	Leu	Ala	Phe	Leu	Val
				165					170					175	
Asn	Val	Gly	Ser	Gly	Ser	Lys	Gly	Ser	Asp	Ala	Ala	Cys	Trp	Ala	Arg
			180					185					190		
Gly	Ala	Val	Phe	His	Tyr	Phe	Leu	Cys	Ala	Phe	Thr	Trp	Met	Gly	
			195				200					205			
Leu	Glu	Ala	Phe	His	Leu	Tyr	Leu	Leu	Ala	Val	Arg	Val	Phe	Asn	Thr
			210			215					220				
Tyr	Phe	Gly	His	Tyr	Phe	Leu	Lys	Leu	Ser	Leu	Val	Gly	Trp	Gly	Leu
225					230					235					240
Pro	Ala	Leu	Met	Val	Ile	Gly	Thr	Gly	Ser	Ala	Asn	Ser	Tyr	Gly	Leu
				245					250					255	
Tyr	Thr	Ile	Arg	Asp	Arg	Glu	Asn	Arg	Thr	Ser	Leu	Glu	Leu	Cys	Trp
			260					265					270		
Phe	Arg	Glu	Gly	Thr	Thr	Met	Tyr	Ala	Leu	Tyr	Ile	Thr	Val	His	Gly
			275				280					285			
Tyr	Phe	Leu	Ile	Thr	Phe	Leu	Phe	Gly	Met	Val	Val	Leu	Ala	Leu	Val
			290			295					300				
Val	Trp	Lys	Ile	Phe	Thr	Leu	Ser	Arg	Ala	Thr	Ala	Val	Lys	Glu	Arg
305					310					315					320
Gly	Lys	Asn	Arg	Lys	Lys	Val	Leu	Thr	Leu	Leu	Gly	Leu	Ser	Ser	Leu
				325					330					335	
Val	Gly	Val	Thr	Trp	Gly	Leu	Ala	Ile	Phe	Thr	Pro	Leu	Gly	Leu	Ser
			340					345					350		
Thr	Val	Tyr	Ile	Phe	Ala	Leu	Phe	Asn	Ser	Leu	Gln	Gly	Val	Phe	Ile
			355				360					365			
Cys	Cys	Trp	Phe	Thr	Ile	Leu	Tyr	Leu	Pro	Ser	Gln	Ser	Thr	Thr	Val
			370			375					380				

Ser Ser Ser Thr Ala Arg Leu Asp Gln Ala His Ser Ala Ser Gln Glu
 385 390 395 400

<210> 49
 <211> 825
 <212> DNA
 <213> Homo sapiens

<400> 49
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 ctgttctctc tgaatctggc cttcttggtc aatgtgggga gtggctcaaa ggggtctgat 180
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 ggcactggga gtgccaacag ctacggcctc tacaccatcc gtgataggga gaaccgcacc 420
 tctctggagc tatgtctggt ccgtgaaggg acaaccatgt acgccctcta tatcacctgc 480
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<210> 50
 <211> 274
 <212> PRT
 <213> Homo sapiens

<400> 50
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 His Pro Arg Leu Ser Arg Glu Arg Phe Lys Ser Glu Asp Ala Pro Lys
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 Ile His Val Ala Leu Gly Gly Ser Leu Phe Leu Leu Asn Leu Ala Phe
 35 40 45
 Leu Val Asn Val Gly Ser Gly Ser Lys Gly Ser Asp Ala Ala Cys Trp
 50 55 60
 Ala Arg Gly Ala Val Phe His Tyr Phe Leu Leu Cys Ala Phe Thr Trp
 65 70 75 80
 Met Gly Leu Glu Ala Phe His Leu Tyr Leu Leu Ala Val Arg Val Phe
 85 90 95
 Asn Thr Tyr Phe Gly His Tyr Phe Leu Lys Leu Ser Leu Val Gly Trp
 100 105 110
 Gly Leu Pro Ala Leu Met Val Ile Gly Thr Gly Ser Ala Asn Ser Tyr
 115 120 125
 Gly Leu Tyr Thr Ile Arg Asp Arg Glu Asn Arg Thr Ser Leu Glu Leu
 130 135 140
 Cys Trp Phe Arg Glu Gly Thr Thr Met Tyr Ala Leu Tyr Ile Thr Val
 145 150 155 160
 His Gly Tyr Phe Leu Ile Thr Phe Leu Phe Gly Met Val Val Leu Ala
 165 170 175
 Leu Val Val Trp Lys Ile Phe Thr Leu Ser Arg Ala Thr Ala Val Lys
 180 185 190
 Glu Arg Gly Lys Asn Arg Lys Lys Val Leu Thr Leu Leu Gly Leu Ser
 195 200 205

[illegible]

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<210> 51
<211> 612
<212> DNA
<213> Homo sapiens
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<210> 52
<211> 203
<212> PRT
<213> Homo sapiens
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 180 185 190
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<210> 53
 <211> 4036
 <212> DNA
 <213> Homo sapiens

<400> 53

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